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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/773,103

02/05/2004

Daniel G. Howard

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EXAMINER

DOAN, TRANG T

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/773,103	Applicant(s) HOWARD ET AL.	
	Examiner TRANG DOAN	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,9-14,16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9-14,16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/25/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 02/15/2008.
2. Claims 1, 5, 10 and 14 have been amended.
3. Claims 6, 8, 15 and 17 have been canceled.
4. Claims 1-5, 7, 9-14, 16 and 18 are pending for consideration.

Response to Arguments

5. Claims Objections from the previous Office action mailed on 08/21/2007 has been withdrawn due to amendments filed on 02/15/2008.
6. Applicant's arguments with respect to claims 1-5, 7, 9-14, 16 and 18 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 7, 9-14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson (US 6477124) (hereinafter Carson) in view of Weldon et al. (US 6747930) (hereinafter Weldon).

Regarding claim 1, Carson discloses a method for determining the presence of an anomaly region in a digital medium comprising: performing multiple read operations

on a data segment of the medium to generate multiple corresponding read data results (Carson: see figure 3, figure 9 and column 2 lines 59-67: continuous read process will provide the second data at a different, nominal data rate as compared to the rate for an authorized disc); calculating based on data values for each of the multiple read data results (Carson: see figure 9, column 2 lines 59-67, column 8 lines 7-32 and column 9 lines 14-20 and lines 40-50, i.e. data rate profile stores different data rates and used for disc authentication purposes); and determining whether an anomaly region is present in the data segment based on comparison (Carson: see figure 9, column 5 lines 7-39, column 7 lines 7-26 and column 8 lines 33-43: such as intentional errors placed at selected locations to provide copy protection for the disc).

Carson does teach about calculating different data rates from multiple read operations and determine the anomaly region based on the calculation of the multiple read operations. However, Carson does not explicitly disclose in detail about calculating digital signatures based on the different data rates. Weldon discloses using digital signature to authenticate if a medium is an original copy or an unauthorized duplicate copy (Weldon: column 32 lines 46-67, column 7 lines 3-25 and column 30 line 58 through column 31 line 20). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the process of creating the digital signature of Weldon to the system of Carson invention to provide such an optical medium which is particularly adapted to prevent unrestricted access to encoded information thereon by an optical readout system, wherein the information may be, for

example, graphical data, video data, audio data, text data, and/or a software program.
(Weldon: column 4 lines 47-52).

Regarding claim 2, Carson as modified discloses wherein the data comprises data selected from the group consisting of: user data, error data, sync data, parity data, header data, and sub-channel data (Carson: see figure 1, ref. 108).

Regarding claim 3, Carson as modified discloses monitoring a transfer rate of the read data during at least one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored transfer rate (Carson: see figure 2, figure 4, column 2 lines 40-67, column 5 lines 27-67 and column 7 lines 7-26).

Regarding claim 4, Carson as modified discloses first monitoring a first transfer rate of first read data during one of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored first transfer rate; and in the event that the presence of an anomaly is not determined as a result of the first monitoring, second monitoring a second transfer rate of second read data during another of the read procedures, and further determining whether an anomaly region is present in the data segment based on the monitored second transfer rate (Carson: see figure 3, column 6 lines 45-55 and column 8 lines 15-32).

Regarding claim 5, Carson does not disclose in detail wherein calculating corresponding digital signatures for each of the multiple read data results comprises calculating a digital signature selected from the group consisting of MD2, MD4, MD5, Snefru, SHA, NIST DSA, Haval, N-Hash, and RIPE-MD digital signatures. Weldon

discloses using digital signature to authenticate if a medium is an original copy or an unauthorized duplicate copy (Weldon: column 32 lines 46-67, column 7 lines 3-25 and column 30 line 58 through column 31 line 20). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the process of creating the digital signature of Weldon to the system of Carson invention to provide such an optical medium which is particularly adapted to prevent unrestricted access to encoded information thereon by an optical readout system, wherein the information may be, for example, graphical data, video data, audio data, text data, and/or a software program. (Weldon: column 4 lines 47-52).

Regarding claim 7, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 9, Carson as modified discloses authenticating the medium in response to the determination of the presence of the anomaly region (Carson: see figure 9 and column 8 lines 15-32 and column 9 lines 14-50).

Regarding claim 10, this claim has limitations that is similar to those of claim 1, thus it is rejected with the same rationale applied against claim 1 above.

Regarding claim 11, this claim has limitations that is similar to those of claim 2, thus it is rejected with the same rationale applied against claim 2 above.

Regarding claim 12, this claim has limitations that is similar to those of claim 3, thus it is rejected with the same rationale applied against claim 3 above.

Regarding claim 13, this claim has limitations that is similar to those of claim 4, thus it is rejected with the same rationale applied against claim 4 above.

Regarding claim 14, this claim has limitations that is similar to those of claim 5, thus it is rejected with the same rationale applied against claim 5 above.

Regarding claim 16, this claim has limitations that is similar to those of claim 7, thus it is rejected with the same rationale applied against claim 7 above.

Regarding claim 18, this claim has limitations that is similar to those of claim 9, thus it is rejected with the same rationale applied against claim 9 above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TRANG DOAN whose telephone number is (571)272-0740. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Trang Doan/
Examiner, Art Unit 2131

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2131